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AUTHOR	Threlkeld, Joyce C.
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ABSTRACT

Intended for use in conducting short seminars on sanitation for restaurant owners and managers, the conceptual outline is organized to provide four hours of classroom instruction. Two major concepts are emphasized. The first concept, the effect of sanitary practices on the financial profits of food service, focuses on: (1) service and quality to provide profit, (2) expectations of customers, (3) development of positive attitudes of employees, (4) motivation of employees, and (5) organization for teamwork. The second concept, identification of ways to prevent the contamination of food, deals with bacteria which cause food poisoning and cleanliness of equipment, utensils, and facilities. A three-page resource guide lists books, bulletins, pamphlets, curriculum guides, and other instructional materials with sources and prices. A 20-page appendix includes a list of food-borne illnesses, evaluative materials, transparency masters, and a housekeeping checklist. (MW)

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Seminar On Sanitation

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Mrs. Joyce C. Threlkeld, Home Economics Specialist
Instructional Materials Laboratory for Vocational Education
University of Kentucky, Lexington 40506
1972

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JAN 3 1 1975

Unit I

SEMINAR ON SANITATION

for

Restaurant Owners and Managers

Teaching Guide Prepared by
Mrs. Joyce C. Threlkeld, Home Economics Specialist
Instructional Materials Laboratory--Division of Vocational Education
University of Kentucky - Lexington, Kentucky 40506
1972

FOREWORD

This guide is the first of two short seminars on sanitation to upgrade restaurant owners and managers on sanitary practices.

The need for such a unit and the content of the course was established by the following committee.

Miss Mary Bell Vaughan, State Director, Division of Home Economics Education
Miss Jewell Deene Ellis, Assistant State Director, Home Economics Education
Miss Mary Ashford, Ashland Area Vocational School
Mrs. Eliza Shettler, Northern Kentucky Area Vocational School
Mrs. Helen Bishop, Supervisor, Home Economics Adult Education
Mrs. Joyce C. Threlkeld, Home Economics Specialist, Instructional Materials Laboratory, University of Kentucky
Mr. Irving Bell, Division of Environmental Services, State Department of Health
Mr. Bill Thompson, Executive Vice President, Kentucky Restaurant Association
Mr. Bill Jones, Chairman of the Health Committee, Kentucky Restaurant Association

A working copy was prepared incorporating suggestions from the planning committee. This working copy was used by Home Economics Food Service teachers at Ashland Area Vocational School, Northern Kentucky Area Vocational School, and Owensboro Area Vocational School to train restaurant owners and managers in these three areas. These teachers, their students, and the original planning committee evaluated these seminars.

At that time it was decided to prepare the final guide in two units. The final revision of the course content of the two units was done by Mrs. Read Shettler, Mrs. Helen Bishop and Mrs. Joyce Threlkeld.

Final editing for the guide was done by Dr. Herbert Bruce, Director, Instructional Materials Laboratory, University of Kentucky.

The cover and some of the transparencies were designed by Tom Vantreese, and other transparencies were designed by Ray Gilmore. Both Mr. Vantreese and Mr. Gilmore are artists for the Instructional Materials Laboratory, University of Kentucky.

TABLE OF CONTENTS

		Page
I.	Guidelines for Organization of Seminar on Sanitation for Restaurant Managers	1
II.	Hints to Teachers	2
III.	Conceptual Outline of Unit	3
IV.	Session I Part I	4
V.	Session I Part II	7
VI.	Session II Part I	10
VII.	Session II Part II	13
VIII.	Evaluation	16
IX.	Resource Material	17
X.	Appendixes	20

Guidelines for Organization of
Seminar on Sanitation for Restaurant Managers

1. The teacher selected to conduct a seminar should contact the local representative of the State Department of Health (sanitarian) and the local representative of the Kentucky Restaurant Association (President, if organized) and arrange a meeting for making overall plans for the seminar. The following recommendations should be considered at the meeting:

   (a) It may be advantageous to hold the seminar in the spring or fall when restaurants are not busy with extra customers during holidays or vacation months.

   (b) Restaurant managers may find it more convenient to be away from their business establishments between 2:00 and 4:00 in the afternoon.

   (c) Hold the two sessions of the seminar on consecutive days--or within a two-week period.

   (d) Hold the seminar at a place with adequate parking space and facilities for using audio-visual equipment.

2. Promotional activities for the seminar need to be planned jointly with the Health Department and a representative of the Restaurant Association. Activities may include:

   (a) Personal contacts by representatives of 3 co-sponsoring agencies

   (b) Printed flyers giving seminar description

   (c) A memo from the local Health Department near the time of the seminar

   (d) Announcements from the Kentucky Restaurant Association

3. It is the responsibility of the teacher to notify the Division of Vocational Home Economics of the exact time and place a specific seminar will be taught. They, in turn, will notify the Division of Environmental Services of the State Department of Health and the Kentucky Restaurant Association.

4. Limiting enrollment in one seminar to 25-35 people will allow for more participation by those in the group.

5. Limiting the persons invited to food service managers, supervisors, or others in managerial positions will allow the teacher to slant the material to the needs of management. (It is usually better to start education at the top of the employment ladder and move down to the workers.)

6. The teacher needs to keep an accurate record of enrollment and attendance. This record shall accompany the report sent to the Division of Vocational Home Economics at the end of the seminar.

7. It is advisable to award certificates of attendance to those who attended all sessions of the seminar.

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Hints to Teachers

1. Name tags are a good idea with most groups.
2. Materials and supplies should be ordered in advance.
3. The teacher may contact the Division of Home Economics Education, Frankfort, Kentucky for copies of the slides produced by the Health Department and the Western Kentucky University Manual, "Guides to Food Service."
4. Pre-arrange the classroom in such a way that each student will have a good view of the visuals.
5. All equipment should be checked to be sure it is operational, and replacement bulbs, etc., should be available in case they are needed.
6. Excellent suggestions for preparing for such a class are given on pages 7-11 of Health, Education, and Welfare bulletin, "Sanitary Food Service."
7. It is a good idea to supply a folder in which the student may keep materials received in the class. These may be given out at registration, placed where each student will sit, given at the end of the session as a means of summarizing, or given out as needed.
8. If you wish to write something for the students to see such as a list or summary, an overhead projector is a better choice than a chalkboard.
9. An effective interest approach is to make a display of all the materials you can find that would be helpful for the employer to use in training employees.

Conceptual Outline-Unit I

SEMINAR ON SANITATION FOR RESTAURANT OWNERS AND MANAGERS

Time: 4 Hours - 2 Session

Concept I: The Effect of Sanitary Practices on the Financial Profits of Food Service

A. Service and quality to provide profit

B. Expectations of customers

C. Development of positive attitudes of employees

D. Motivation of employees

E. Organization for teamwork

Concept II: Identification of Ways to Prevent the Contamination of Food

A. Bacteria which causes food poisoning

B. Cleanliness of equipment, utensils, and facilities

UNIT I

SESSION I: Part I

MAJOR CONCEPT: The effect of sanitary practices on the financial profits of food service establishments

SUPPORTING CONCEFT: A. Service and quality to provide profit
B. Expectations of customers

BEHAVIORAL OBJECTIVE FOR UNIT: Recognize the need for improving food service practices in individual establishments

SPECIFIC PERFORMANCE OUTCOMES: The student will - identify sanitary practices which would improve profits in food service establishments
- describe customer expectations

GENERALIZATION: A food service establishment is more likely to show a financial profit when good nutritious food is served in clean surroundings by well trained personnel.

Some Supporting Content and Generalizations	Teaching Strategies Learning - Evaluating Experiences	Resources
	(Note: Class will get off to a better start if the local Health Department Sanitarian welcomes the group, explains the purpose of the seminar, and introduces the Director of the Vocational School. The Director may give additional background of the program and introduce the teacher. To simplify registration ask the Sanitarian to give you, in advance, the names of those expected to attend and other necessary information. Registration sheets could be made out in advance and the students would need only to check the sessions they attended.)	Sample of registration sheet Appendix A

Some Supporting Content and Generalizations	Teaching Strategies Learning - Evaluating Experiences	Resources
	Respond to Questions: 1. Why are you in the restaurant business? 2. Why are you here tonight?	
Customers are attracted to a food service establishment where good nutritious food is served in clean surroundings by well trained personnel.	Analyze facts about magnitude of food service industry by looking at flip chart, transparencies, posters, or handouts	Sanitary Food Service, pp. 1-2 Food Service Employee Guide, pp. A-5
	(Note: "You Have 75 Million Customers" is suitable for a handout here)	Kentucky State Department of Health
A successful restaurant means job security, higher wages, and better working conditions for employees.	View and discuss slides or transparencies on distribution of the food service dollar	Kentucky Department of Health Slide I-19 or Appendix B
	(Note: Appendix B is also suitable for a handout)	Appendix B
	Suggest ways of helping employees understand that increased food costs reduce wages and profits	

Some Supporting Content and Generalizations	Teaching Strategies Learning - Evaluating Experiences	Resources
	View and discuss slides which contrast good and poor sanitary conditions and practices in restaurants	Kentucky State Department of Health Slides: Group I Slides No. 4, 5, 10, 12-17, 20, 22, and 23 Group III Slides No. 5, 6, 8a, 8b, 8c, 9, 11a, 11b, 12a, 12b, 13a, 13b, 14a, and 15-18
The customer is the most important person in any food service adventure.	Discuss things that attract or offend customers Cite examples from the establishments which the students represent	Cinda Service Speaks Out About Your Career As A Sales Hostess, Ohio State Restaurant Association The Man Who Didn't Come To Dinner, National Restaurant Association A Nice Guy's Revenge, Single Service Institute

UNIT I

SESSION I: Part II

MAJOR CONCEPT OF UNIT: Identification of ways to prevent the contamination of food

SUPPORTING CONCEPT: Bacteria which causes food poisoning

BEHAVIORAL OBJECTIVE FOR UNIT: Recognize the need for helping employees understand basic principles of sanitation

SPECIFIC PERFORMANCE OUTCOMES: The student will - identify ways disease may be spread through careless handling of food and equipment

GENERALIZATION: Between the time food is produced until it is eaten by man there are many opportunities for its contamination.

Some Supporting Content and Generalizations	Teaching Strategies Learning - Evaluating Experiences	Resources
	(Note: For an interest approach contaminate several bowls of gelatin with bacteria from hair, scrapings from underneath fingernails, droplets from a cough, etc. If the sessions are on consecutive days this would need to be done several days in advance of the seminar, so that the bacteria will have time to develop.)	
Food may produce illness or even death without a change in the appearance, taste, color, or even the odor of the food concerned.	Recall and discuss recent cases of food poisoning that received publicity, and the effect of such publicity on food service establishments	Newspaper clippings, Magazine articles Guidelines to Food Service, W.K.U. Manual, Part II, pp. 11-15 Sanitary Food Service, H.E.W. Guide, pp. 19

Some Supporting Content and Generalizations	Teaching Strategies Learning - Evaluating Experiences	Resources
The reporting of foodborne illness is neither complete nor accurate. However, it is concluded that the major problem is related to food handling rather than the quality of the food.	View transparencies or slides while discussing frequency of foodborne disease in the United States	Appendixes C, D, and E Detecting Food Spoilage, H.R.E.T. Transparency, Lesson 3, Number 2 Kentucky Department of Health Slides, Group III, Numbers 1-4
	(Note: Appendix C and D are same as slides, Group III, Numbers 1-3)	
	(Note: The teacher may use Appendix F either as a pretest or as a handout to encourage discussion)	Pretest Section I, Part II, Appendix F
The four most common bacteria that cause food poisoning are: - staphylococcus - clostridium perfringens - salmonella - streptococcus	View and discuss filmstrip and/or transparencies on harmful bacteria and how to prevent their growth	The Unwanted Four, National Restaurant Association Conditions Affecting Growth of Bacteria, H.R.E.T. Transparency, Lesson 2, Number 1 Bacteria: Growth and Preventing Spread, H.R.E.T. Transparency, Lesson 2, Number 2 On-Guard Posters, Single Service Institute
	(Note: Transparencies may be made from appendixes which apply to the contamination of food)	Appendixes G-N

Some Supporting Content and Generalizations	Teaching Strategies Learning - Evaluating Experiences	Resources
	(Note: Appendix L is illustrated in slides No. 4-9, Group II. Appendix M is illustrated in slides No. 1, 10, 11, and 12, Group II. Appendixes are suitable for handouts for student folders)	Kentucky Department of Health Slides
Food may be infected by coughs, sneezes, handling and dirty equipment.	Study, check and discuss cartoon test on sanitation violations	Sanitation Follies, Single Service Institute
Food service workers have the responsibility of protecting food during storage, preparation, display and service.	(Note: Teacher may summarize material covered and points discussed in this session using handouts or other appropriate visuals)	
	Listen to and react to preview of second session	
	(Note: Ideas given for previewing session in "Sanitary Food Service"	Sanitary Food Service, H.E.W. Booklet, pp. 9

UNIT I

SESSION II: Part I

MAJOR CONCEPT OF UNIT: The effect of sanitary practices on the financial profits of food service establishments

SUPPORTING CONCEPT:
A. Development of positive attitudes of employees
B. Motivation of employees
C. Organization for teamwork

BEHAVIORAL OBJECTIVE FOR UNIT: Recognize the need for motivating employees to use good sanitary practices and provide quality food and service.

SPECIFIC PERFORMANCE OUTCOMES: The student will
- devise ways employees might be encouraged to improve attitudes
- list ways of motivating employees
- organize responsibilities for food service team in food service establishment

GENERALIZATION: A profitable and efficient food service establishment should be the goal of both employee and employer.

Some Supporting Content and Generalizations	Teaching Strategies Learning - Evaluating Experiences	Resources
	(Note: Use place cards and group students according to the size of the establishment in which they work [if this is acceptable to the group]. Teacher may review preceding session and present objectives of this session. Use overhead projector, flip chart, poster, etc.)	

Some Supporting Content and Generalizations	Teaching Strategies Learning - Evaluating Experiences	Resources
Success on the job as a food service employee depends largely on one's ability to get along with others.	List and discuss suggestions from members of the class as to reasons for negative attitudes of employees such as: - Indifference - Low pay - Ignorance - Uninformed	
The food service employee with a positive attitude shows interest in high quality performance.	Cite examples and analyze methods of influencing attitudes of employees such as: - Check sheet - Use of suggestion box - Rewards - Buddy system - Staff meetings - On-the-job training - Incentive program	Service Is An Honorable Profession. Ed. Solomon, pp. 66
	View and discuss the filmstrip on attitudes, found in the "Smart Waitress" series	The Smart Waitress, Part 2
	Summarize ways employees may be encouraged to improve attitudes	
Employees usually exhibit little desire to make the establishment a superior one unless there is financial reward.	Share ways of helping employees understand that increased food costs reduce wages and profits	

Some Supporting Content and Generalizations	Teaching Strategies Learning - Evaluating Experiences	Resources
The growth of any organization will depend on the degree of participation of every member of the organization's team.	View and discuss filmstrip on methods of encouraging teamwork found in the "Smart Waitress" series	The Smart Waitress, Part 4
	In small groups, study a list of jobs necessary in food service establishments Choose those jobs which apply to employees of the businesses represented by the group Using organizational chart as a guide (found in Appendix O and Slide I-3) make a job analysis suitable for the businesses represented by the group	Kentucky State Department of Health, Slide I-3 and Appendix O
	(Note: Appendix O is suitable for transparency or handout and is same as Slide I-3)	
	Summarize how these job analyses may be used to help train employees	
	Activity: Examine resource materials on display	Suggested in Hints to Teachers, pp. 2

UNIT I

SESSION II: Part II

MAJOR CONCEPT OF UNIT: Identification of ways to prevent the contamination of food

SUPPORTING CONCEPT: Cleanliness of equipment, utensils, and facilities

BEHAVIORAL OBJECTIVE FOR UNIT: Recognize the need to train employees in the appropriate methods of cleaning and sanitizing equipment, utensils, and facilities.

SPECIFIC PERFORMANCE OUTCOMES: The student will - identify methods of cleaning and sanitizing equipment, utensils, and facilities

GENERALIZATION: Practicing good sanitation results in more efficient operation of equipment and less food lost due to spoilage.

Some Supporting Content and Generalizations	Teaching Strategies Learning - Evaluating Experiences	Resources
	(Note: The teacher may use Appendix P either as a pretest or as a handout to stimulate discussion.)	Pretest Session II, Part II, Appendix P
Management needs to rely upon the advice of professionals to accomplish the desirable features of a good sanitary program.	Resource person, such as Sanitation Officer of County Health Department, shall explain "Inspection Report for Food Service Establishment," and the most frequent violations by food service establishments.	Form ES-194, revised September, 1969, Kentucky Department of Health
	(Note: May use Slide Number I-21 for class to view while discussing form ES-194)	Kentucky Department of Health Slide, Number I-21

Some Supporting Content and Generalizations	Teaching Strategies Learning - Evaluating Experiences	Resources
All equipment used in the preparation or serving of food needs to be thoroughly cleaned after each use to prevent contamination.	View and discuss filmstrip on sanitation of the establishment and its equipment found in the "Protecting the Public" series	Protecting the Public, Part 3
Select equipment for food service use that is resistant to denting, buckling, pitting, chipping, crazing, and excessive wear under normal pressure.	(Note: Teacher may use Appendix Q as a handout and encourage the students to use this to take notes when cleaning procedures of equipment are viewed and discussed)	How to Clean Equipment, Appendix Q
When management becomes convinced of the importance of developing and maintaining high sanitary standards in food service establishments, the training in sanitation becomes an integral part of the training program.	While discussing procedures for cleaning equipment used in preparing food, view slides and/or transparencies and/or handouts made from Appendixes Examine bowls of gelatin contaminated in first session Discuss the types and amount of contamination found on the gelatin	Kentucky Department of Health Slide, Group IV, No. 17-21, 25-33, and 37-39 Transparencies may be made from Texas Food Service Employee Guide, Unit IV Appendixes R, S, and T

Some Supporting Content and Generalizations	Teaching Strategies Learning - Evaluating Experiences	Resources
	View and discuss a film suitable for a summarization of the ideas presented in the seminar. Evaluate the seminar (Note: Certificates of attendance may be awarded to those who have attended both sessions)	The Invaders, The Diversey Corporation.

EVALUATION

Directions:

This evaluation is being made to determine the merits and weaknesses of this program. Please answer each question thoroughly and thoughtfully. Be critical. Any suggestions you might have for improving this program will be greatly appreciated.

1. Do you feel the overall content of this program met your immediate needs?
   Yes _____ No _____
   Comments:

2. What are your recommendations as to the teaching of this class in the future, e.g. who should attend, time of day it should be taught, whether the classes should be on consecutive days or once a week, number of lessons needed, what time of year it should be offered etc.

3. What do you feel is needed for future class discussion?

4. What is your most difficult function in food service management?

5. What changes do you intend to make in your food service establishment as a result of these lessons?

6. List below any further comments you would like to make concerning this and future experiences in such a program.

Resource Material

Seminar on Sanitation Unit I

Books, Bulletins, Pamphlets	Author or Source	Publisher and/or Address	Date	Cost
"A Nice Guy's Revenge"	Single Service Institute	250 Park Avenue New York, New York 10017		$2.50 per 100
"Cinda Service Speaks Out About Your Career As a Sales Hostess"	David W. Field	Ohio State Restaurant Association, 40 South Third Street Columbus, Ohio 43215		$1.00
"Sanitation Follies"	Single Service Institute	250 Park Avenue New York, New York 10017	1956	$ .02 each
"Service Is An Honorable Profession"	Ed Solomon	McGarvey's Boat Drive-In Restaurant, Vermilion, Ohio 44089		$1.50
"The Man Who Didn't Come To Dinner"	National Restaurant Association	1530 North LakeShore Drive Chicago, Illinois 60610		.50¢
"You Have 75 Million Customers"	Kentucky State Department of Health	275 East Main Street, Frankfort, Kentucky 40601	1961	free

Curriculum Guides	Author or Source	Publisher and/or Address	Date	Cost
"A Curriculum Guide for Preparing Food Service Workers for Entry Level Jobs	Oklahoma State University Extension	Stillwater, Oklahoma 74074		
"Food Service Employee Guide"	Instructional Materials Center	Texas Technical University P. O. Box 4067 Lubbock, Texas 79409		$10.00

cont.

Curriculum Guides	Author or Source	Publisher and/or Address	Date	Cost
"Guidelines to Food Service"	Western Kentucky University Marvin T. Bond, Ph.D. Elizabeth M. Elbert, Ph.D Mulford C. Lockwood, D.V.M. Donald R. Rowe, Ph.D.	Available from: Home Economics Education Department of Education Frankfort, Kentucky 40601		free loan
"Sanitary Food Service"	Department of Health, Education and Welfare	Superintendent of Documents Washington, D. C. 20402	1969	$1.50

Film	Source	Address		Cost
"The Invaders"	The Diversey Corporation	212 W. Monroe Street Chicago, Illinois 60606		Purchase $95.00 free loan

Filmstrips	Source	Address		Cost
"Protecting The Public" Part 3 -"Establishment and Equipment Sanitation"	National Restaurant Association	1530 North Shore Drive Chicago, Illinois 60610	1969	$35.95 (set of 3)
"The Smart Waitress" Part 2 "Attitudes" Part 4 "Team Work"	National Restaurant Association	1530 North Shore Drive Chicago, Illinois 60610		$59.50 (set of 4)
"The Unwanted Four"	National Restaurant Association	1530 North Shore Drive Chicago, Illinois 60610		and record $14.95

Transparencies	Source	Address		Cost
"Bacteria: Growth And Preventing Spread"	Hospital Research and Educational Trust	840 N. Lake Shore Drive Chicago, Illinois 60610		

cont.

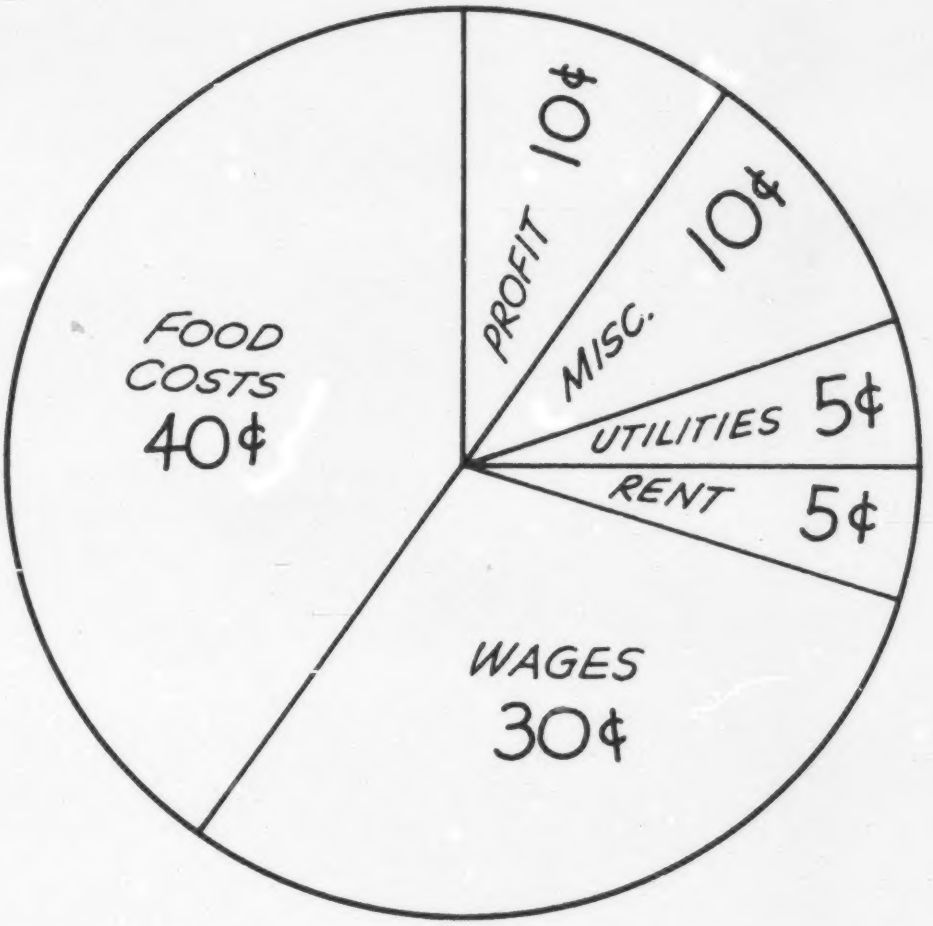
Transparencies	Source	Address		Cost
"Conditions Affecting Growth of Bacteria"	Hospital Research and Educational Trust	840 North Lake Shore Drive Chicago, Illinois 60610		
"Detecting Food Spoilage"	Hospital Research and Educational Trust	840 North Lake Shore Drive Chicago, Illinois 60610		

Miscellaneous	Source	Address	Date	Cost
Form ES194	Kentucky State Department of Health	275 East Main Street Frankfort, Kentucky 40601	1969	
Slides	Kentucky State Department of Health	**Available from:** Home Economics Education Department of Education Frankfort, Kentucky 40601		free loan
On-Guard Posters	Single Service Institute	250 Park Avenue New York, New York 10017		25¢ for set of 5
"Food Sanitation" Study Course	Anna Katherine Jernigan	Iowa State University Press Ames, Iowa 50010	1971	

APPENDIXES

Restaurant	Address	Name of Representative	Position Held	Date of 1st Seminar	Date of 2nd Seminar

A Food Service DOLLAR



T.VANTREESE, INST MATL. LAB., U.K., 690-2

ADAPTED FROM WESTERN KENTUCKY UNIV. MANUAL "GUIDELINES TO FOOD SERVICE"

Appendix C

Western Kentucky University Manual
"Guidelines to Food Service"

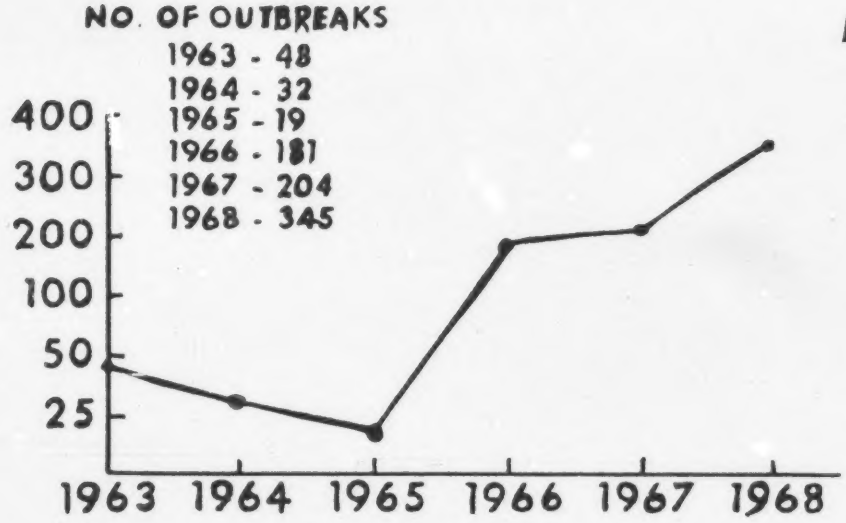
Table 1. Foodborne Illnesses Reported in the U. S. from 1957 to 1962 [a]

Food	Botulism		Staphylococcus		Salmonella		Clostridium perfringens		Trichinosis		Chemical		Other	
	O.[b]	Cases	O.	Cases	O.	Cases	O.	Cases	O.	Cases	O.	Cases	O.	Cases
Meat	1	1	61	2386	8	1534	1	21	13	149	4	30	51	1628
Eggs	-	-	3	58	3	127	-	-	-	-	-	-	2	140
Poultry	2	3	28	1563	16	1633	2	13	-	-	-	-	39	2383
Fish	5	9	4	91	3	113	-	-	-	-	3	15	11	158
Dairy Products	-	-	18	799	9	122	-	-	-	-	1	1	5	249
Bakery Items	-	-	34	293	6	328	-	-	-	-	-	-	14	153
Miscellaneous	21	46	58	2678	24	791	6	266	-	-	14	245	119	3675
Total	29	59	206	7868	69	4648	9	300	13	149	22	291	241	8386

[a]Morbidity and Mortality Weekly Reports, Public Health Service, U. S. Department of Health, Education, and Welfare.

[b]Outbreaks

NUMBER OF MILK, FOOD AND WATER-BORNE OUTBREAKS REPORTED IN THE UNITED STATES 1963-1968



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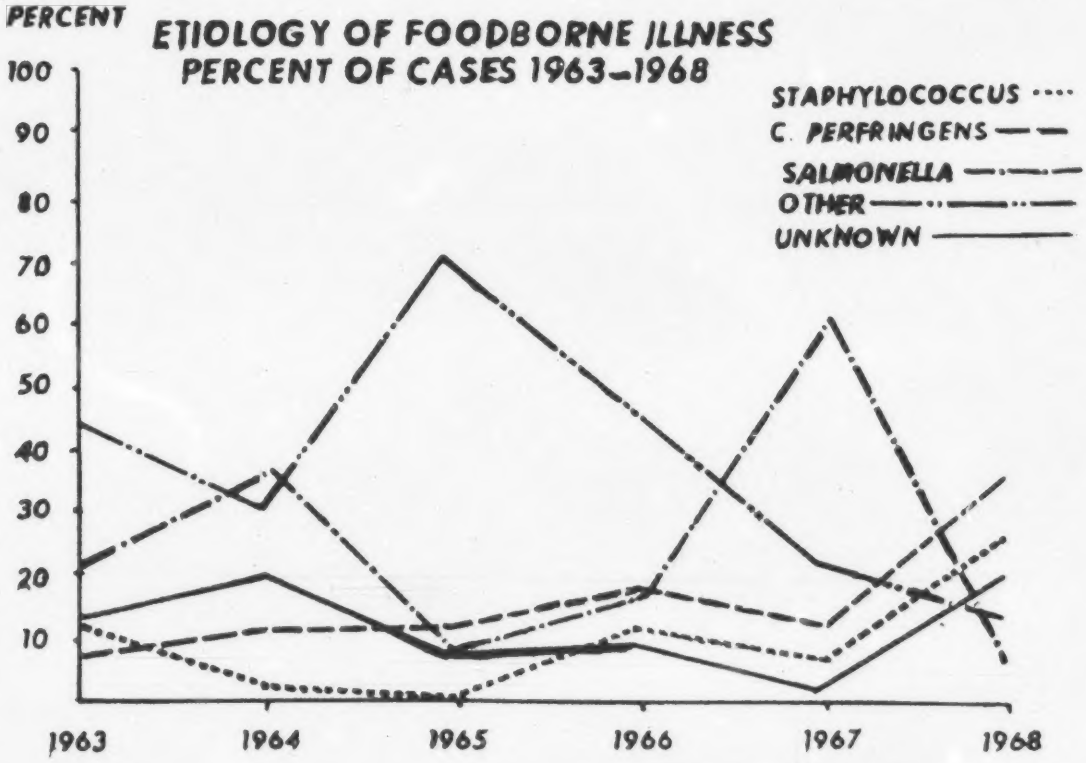
SLIDE NO. III-2



SLIDE NO. III-3

Western Kentucky University Manual
"Guidelines to Food Service"

Appendix E

FOOD-BORNE ILLNESSES

ILLNESSES	CONTRACTED BY	HOW TO AVOID
Typhoid Fever	Water, milk, shellfish contaminated at source. Food from unwashed hands or flies	Use approved water supply. Wash hands. Control flies.
Clostribium Terfringens	Food handled by unclean hands and other unsanitary conditions. Cooked food, such as meat and gravies, left at room temperature for prolonged time.	Avoid eating foods as listed in previous column. Refrigerate food properly.
Staphylococcus	Eating contaminated food, such as egg or breading material, caused by unclean hands or unsanitary conditions.	Eat only foods that have been prepared under sanitary conditions.
Dysentery	Water or food contaminated by unclean hands or infected by flies	Use safe food handling methods and control flies.
Food Poisoning	Food contaminated by unsanitary conditions and by improper refrigeration. Refreezing food after complete prolonged defrosting.	Practice safe food handling methods. Keep food at below 50°. Control rodents and pests.
Trichinosis	Contaminated uncooked pork	Cook all pork products to an internal temperature of 137° or more.
Clostribium Botulinum	Improperly home-canned or damaged canned foods	Boil home-canned food for at least 10 minutes and avoid food in damaged or buldged cans.
Diptheria and other infectious diseases.	Food or tableware handled by an infected person	Wash dishes thoroughly. Good personal hygiene is important.
Undulant Fever	Infected milk	Buy and serve only pasteurized food.

Appendix E

ILLNESSES	CONTRACTED BY	HOW TO AVOID
Botulism	Home-canned foods improperly prepared	Serve canned food properly prepared.
Septic Sore Throat Scarlet Fever	Raw milk contaminated at the source	Buy and serve only pasteurized milk.
Brucellosis (Undulant Fever)	Infected milk	Buy and serve only pasteurized milk.

Appendix F

Pretest

Session I - Part II

Select the letter of the phrase which correctly completes the statement. Choose only one answer for each item.

1. Food poisoning is a general term used to describe

   A. diseases caused by foods.
   B. any food that has been exposed to moisture and warm temperature for several hours.
   C. any illness caused by taking contaminated food or drink into the body.

2. The three major "food germ criminals" are:

   A. salmonella, bacteria, and ptomaine.
   B. botulism, salmonella and staphylococcus.
   C. bacteria, botulism and staphylococcus.

3. What harmful germ is usually found in meat, eggs, poultry, milk and milk products?

   A. salmonella
   B. ptomaine
   C. staphylococcus

4. Which of the following foods become easily contaminated in a short period of time?

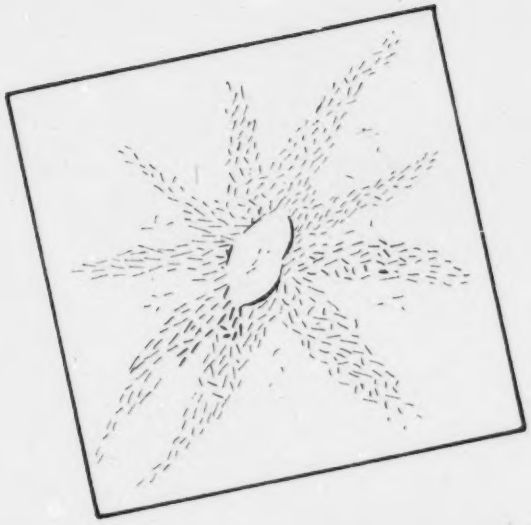
   A. foods high in fat content
   B. foods high in sugar content
   C. foods high in protein content

5. Which of these is a goal of sanitation procedures in food service establishments?

   A. prevention of food spoilage
   B. preparation of high quality food
   C. service of food at the proper temperatures

6. The term "sanitizing" differs from "cleaning" in that sanitizing indicates

   A. absence of soil
   B. removal of harmful bacteria
   C. use of a detergent

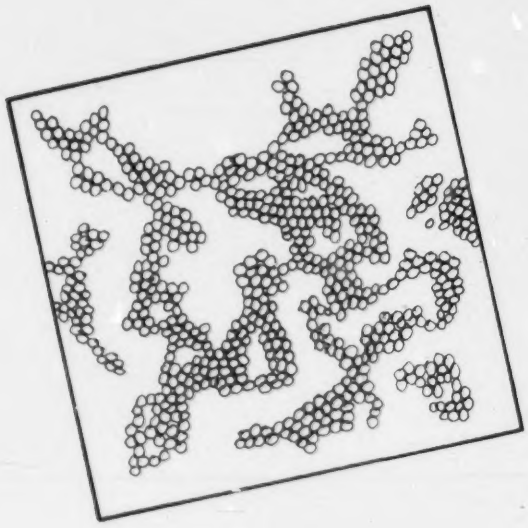


RICKETTSIA

- TYPHUS
- ROCKY MOUNTAIN SPOTTED FEVER

VIRUS

- MEASLES
- CHICKEN POX
- POLIOMYELITIS
- PNEUMONIA



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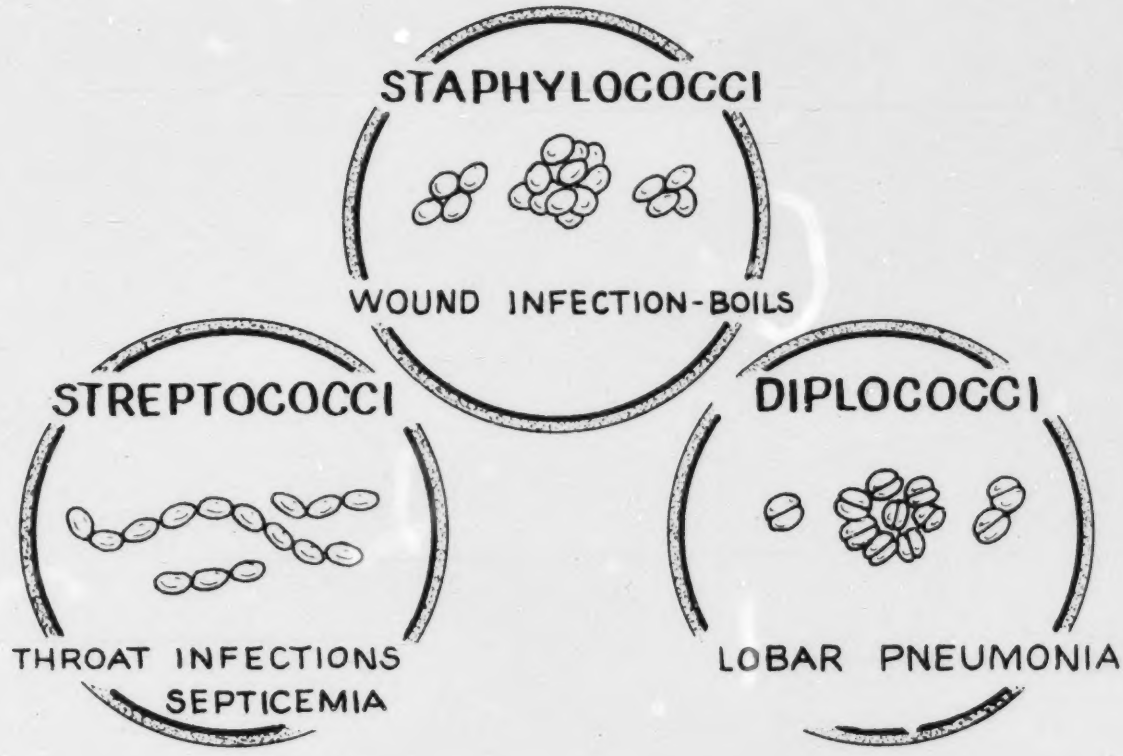

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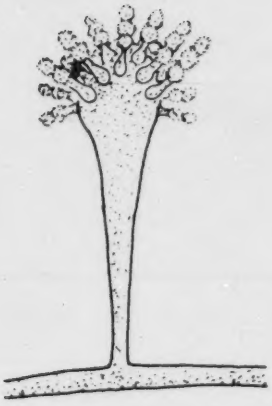
PROTOZOA

AMEBA → MALARIA

PARASITIC INFECTIONS

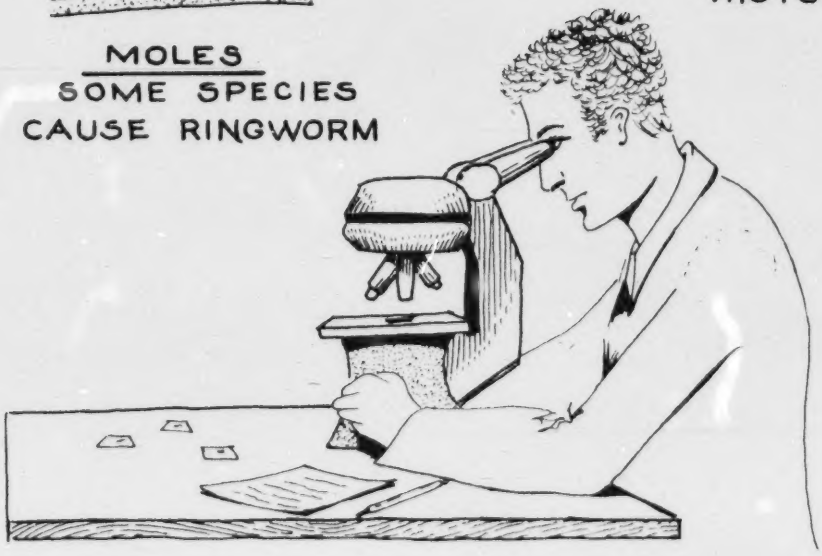


YEAST

SOME STRAINS CAUSE HISTOPLASMOSIS

MOLES

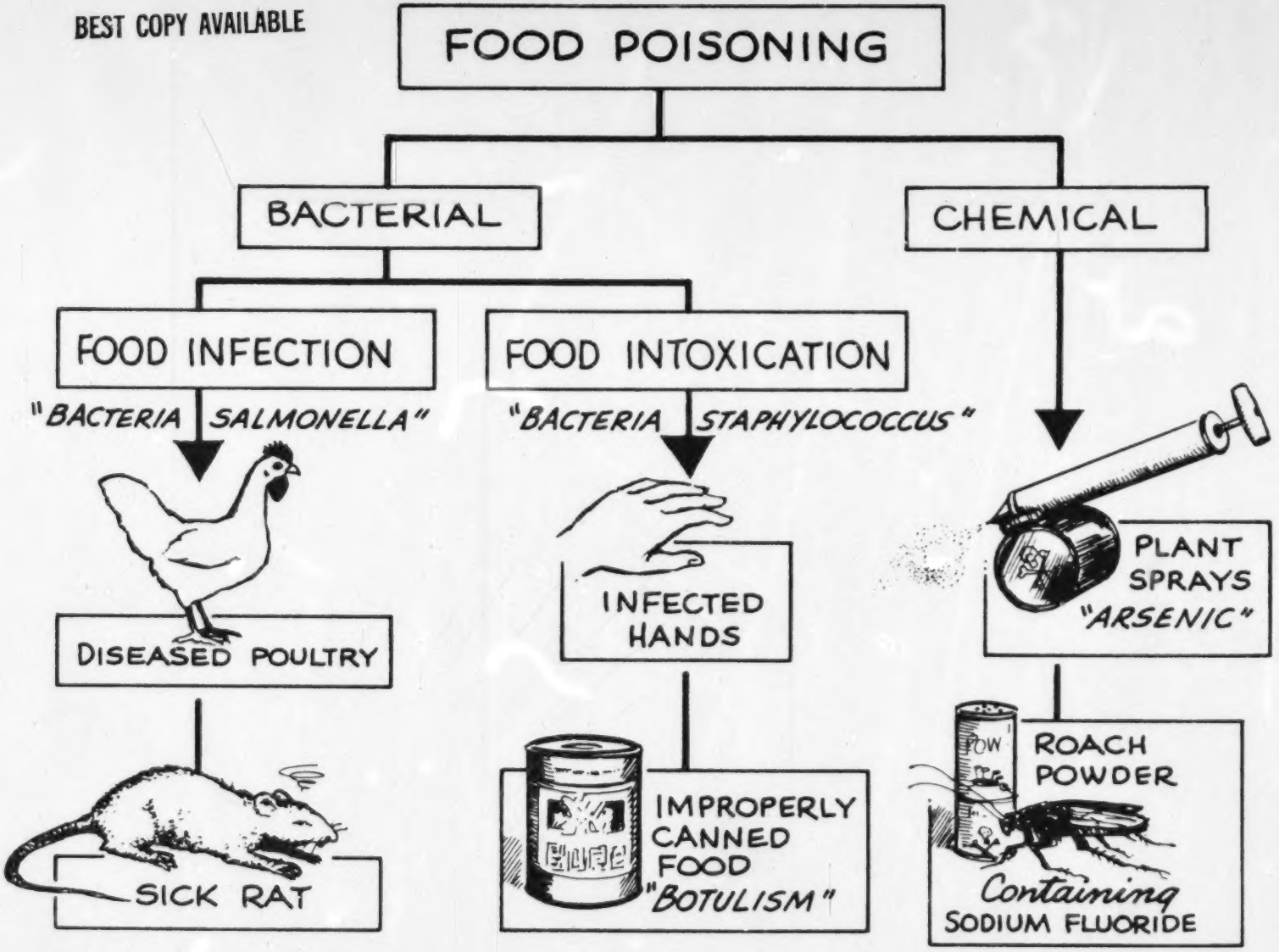
SOME SPECIES CAUSE RINGWORM



R. GILMORE, INST. MATL. CAD C/K

R.GILMORE, INST. MATL. LAB., U.K.

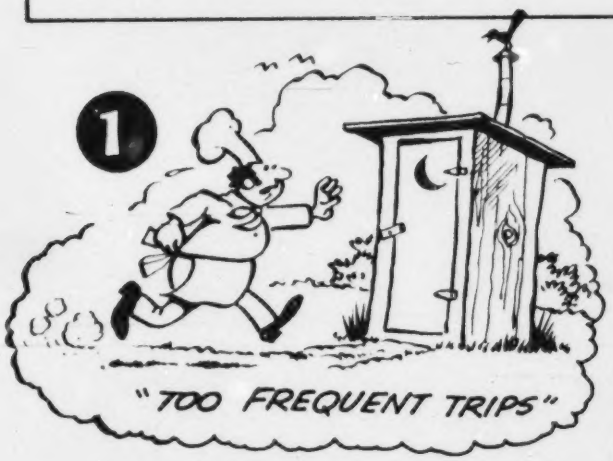
BEST COPY AVAILABLE

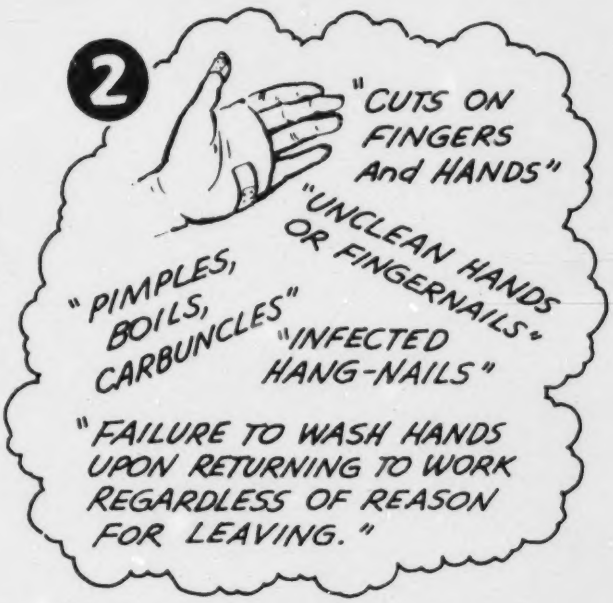


TVANTREESE, INST. MATL. LAB., U.K., 000-5

ADAPTED FROM "FOOD And NUTRITION GUIDE" DIV. VOC., TECH., And ADULT ED. DEPT. OF EDUCATION, TALLAHASSEE, FLA.

Watch For These SYMPTOMS

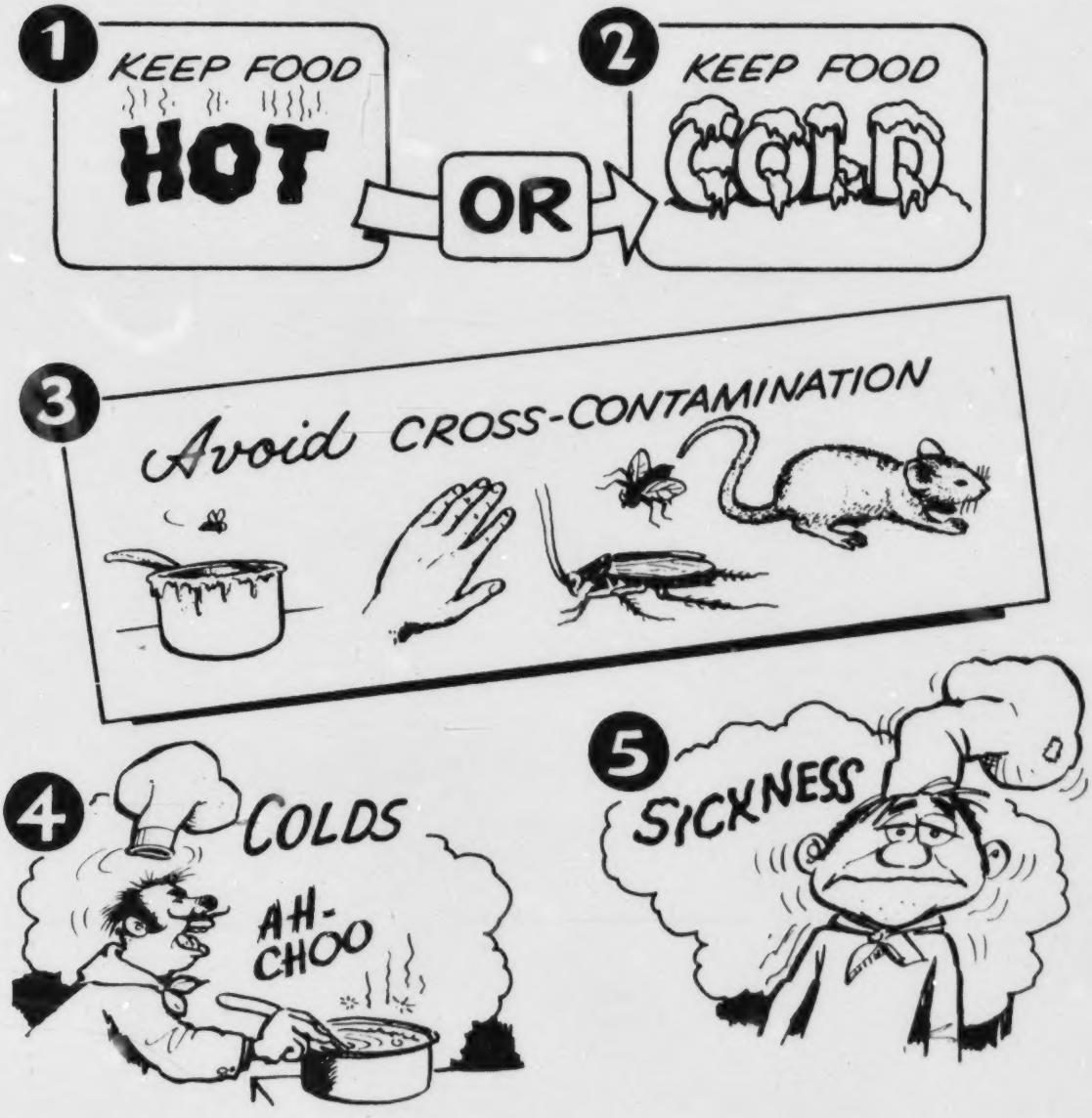



2
"CUTS ON FINGERS And HANDS"
"UNCLEAN HANDS OR FINGERNAILS"
"PIMPLES, BOILS, CARBUNCLES"
"INFECTED HANG-NAILS"
"FAILURE TO WASH HANDS UPON RETURNING TO WORK REGARDLESS OF REASON FOR LEAVING."

I. VANTREESE, INST. MATL. LAB., U.K., 690-4

ADAPTED FROM WESTERN KENTUCKY UNIV. MANUAL "GUIDELINES TO FOOD SERVICE"

Prevent FOOD POISONING & DISEASE



T. VANTREESE, INST. MATL. LAB., U.K., 690-3

ADAPTED FROM WESTERN KENTUCKY UNIV. MANUAL "GUIDELINES TO FOOD SERVICE"

BACTERIAL FOOD POISONING

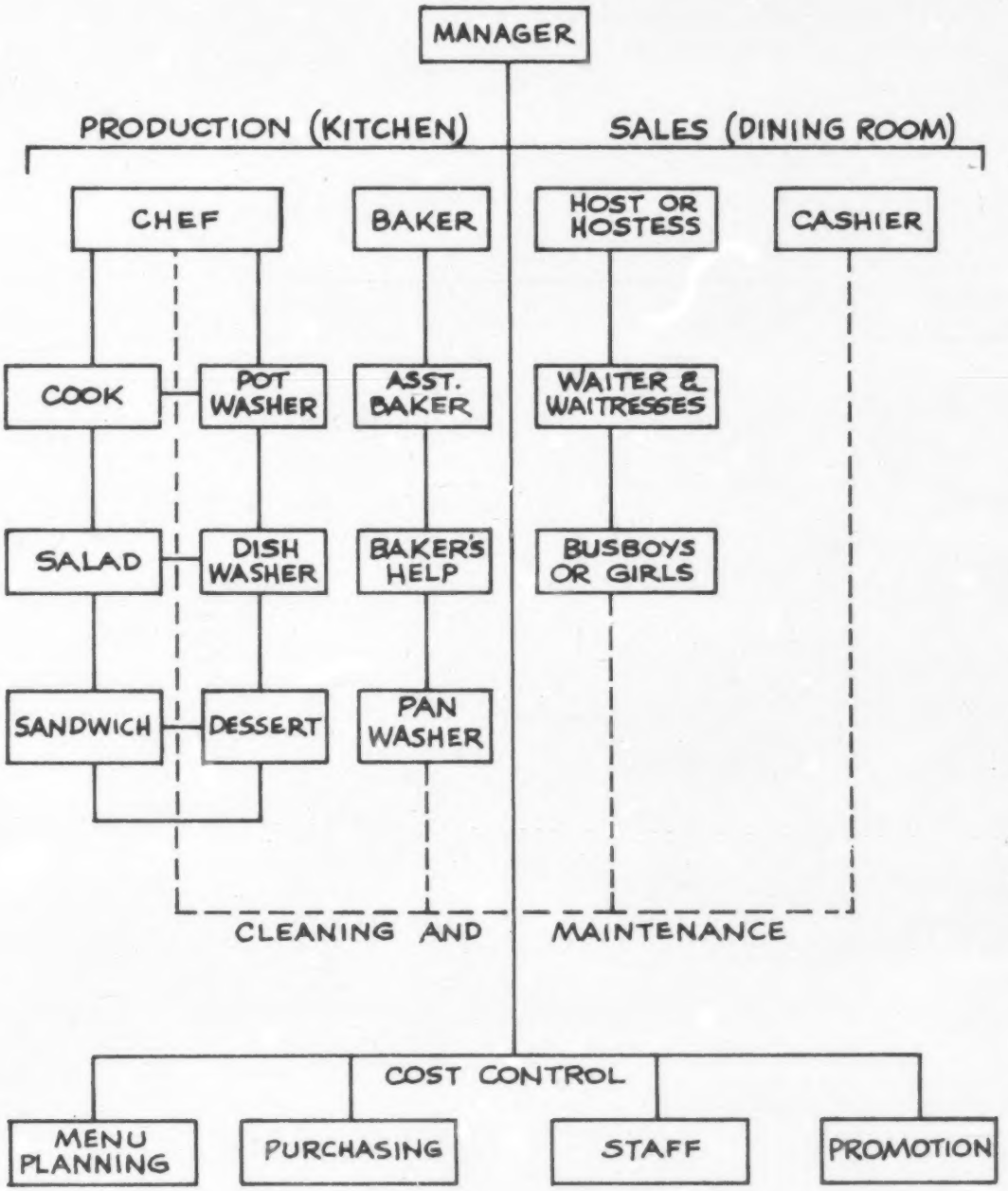
A. Food poisoning of bacterial origin may be due to:
- Bacteria present in the food in its natural state
- Bacteria introduced during preparation
- Bacteria introduced after preparation

B. Salmonella infection:
- The result of the bacteria which may be present in the food in its natural state
- Occur most commonly in poultry
- May be caused by a person who is a "carrier" contaminating the food with fecal material
- Incubation period usually from six to seventy-two hours

C. Staphylococcus infection:
- Due to contamination of the food by a food handler
- Bacteria found in running sores, infected cuts, and nasal discharge
- Food poisoning due to staphylococcus is not an infection but an intoxication
- Bacterial by-products known as "toxins" are actually poisons which cause a violent reaction in humans
- Usual incubation period from one to six hours

D. Streptococcus infection:
- Due to contamination of the food by a food handler
- Contained in nasal or throat discharge
- Is a true infection
- Incubation period usually from two to eighteen hours

FOOD SERVICE ORGANIZATION CHART



T.VANTREESE, INST. MATL. LAB., U.K., 690-6

ADAPTED FROM WESTERN KENTUCKY UNIV. MANUAL "GUIDELINES TO FOOD SERVICE"

Pretest

Session II - Part II

True or False

_____ _____ 1. Personal hygiene plays an important role in helping to prevent the spread of disease through food.

_____ _____ 2. The bacteria or viruses of many of the respiratory diseases may be spread in the droplet spray thrown out from the nose or mouth during a cough or sneeze.

_____ _____ 3. To permit faster service during rush hours, it is permissible to use the hands rather than utensils such as forks or tongs to handle food.

_____ _____ 4. It is important that a food service worker's hands be clean whenever it is necessary to handle food.

_____ _____ 5. The skin is a good carrier of bacteria.

_____ _____ 6. There is very little connection between personal hygiene and the spread of disease through food.

_____ _____ 7. Many of the outbreaks of foodborne illness can be prevented by changing the work habits of food service workers.

_____ _____ 8. Sanitization is the removal or destruction of all disease-producing organisms from eating and drinking utensils or equipment.

_____ _____ 9. Dishwashing is only as effective as the individual responsible for the dishwashing operation.

_____ _____ 10. The manner in which utensils or tableware are placed in a rack for washing has very little effect on how well they are washed.

Appendix Q

HOW TO CLEAN A (Name of equipment)

Equipment and Supplies needed:	Cleaning Products Needed:
What to Do	How to Do It
1.	1.
2.	2.
3.	3.
4.	4.

HOW TO OPERATE A (Name of equipment)

What to Do	How to Do It
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.

Caution:

FOOD SERVICE HOUSEKEEPING CHECK LIST

1) UTENSILS AND EQUIPMENT

_____Readily taken apart for cleaning

_____Repaired and oiled regularly

_____Rat-proof

_____Sinks and ice compartments equipped with drains

_____Use drying towels only if necessary

_____Keep drying towels clean and use only for drying

_____Pots and pans scraped, pre-rinsed, washed, rinsed in hot water, no toweling

_____Clean and stored in a clean place

DISHWASHING

_____Scrape and pre-rinse dishes

_____Change wash water frequently

_____Keep wash water at 110-140°F or 2 minutes in approved alkaline rinse

_____Eliminate toweling of dishes

_____Store dishes on clean and protected shelves

_____Wash and sterilize dishes, glasses, and silver after each use

_____Use paper cups, spoons, etc., only once

_____Provide sufficient number of wire baskets and trays for draining

3) WASTE REMOVAL

_____Provide for the drainage of liquid wastes into sewage system

_____Remove trash daily and dispose of daily

_____Empty and clean garbage and trash cans daily

_____Equip garbage cans with tight lids and replace lids each time they are used

_____Provide an adequate number of cans

4) FOOD

_____Clean up immediately any food spilled or dropped on floor

_____Keep dry food in rat-proof containers with lids

_____Refrigerate perishable foods at 40-50°F

_____Food must be free from spoilage

_____Prepare food only in clean equipment

_____Cover food when on display to protect it from contamination

_____Custard or cream fillings need to be discarded after 24 hours

_____Wash fresh fruits and vegetables thoroughly

_____Purchase milk, ice cream, and frozen desserts from approved sources

_____Serve milk from dispenser or in original individual container

_____Provide hot and cold running water

_____Keep animals off the premises

_____Keep back yard free of rubbish

Adapted from: "Tourist and Resort Series"
Michigan State University

5) FLOORS

_____Smooth, tight, no cracks

_____No holes

_____Clean

_____Washable

6) WALLS

_____Smooth

_____Washable

_____No holes, rat-proof

_____Clean

7) DOORS - WINDOWS

_____Screened

_____In good repair

_____Fit tightly

8) LIGHTING - VENTILATION

_____Clean windows regularly

_____Keep fixtures clean, in good repair and/or hoods clean

_____Keep exhause fans operable

9) TOILET FACILITIES - EMPLOYEES

_____Provide a self-closing door

_____Keep toilets in good repair - flushes and drains properly

_____Provide hot and cold water and a clean hand basin

_____Provide soap dispensers

_____Provide paper towels

_____Post "Wash Hands" signs

_____Keep walls, floors and ceiling, clean and in good repair

_____Rest-rooms properly ventilated and lighted

10) PLACE FOR PERSONAL BELONGINGS - EMPLOYEES

_____Sufficient number

_____Not located in room with food

_____Clean, repaired

11) PERSONAL HYGIENE - EMPLOYEES

_____Caps or hairnets worn

_____Clean, washable garments

_____Hands kept away from nose, mouth, pimples, hair, etc.

_____Hands washed very frequently, after each visit to the toilet room, each time before handling food or the equipment

NOTE: This has been prepared for the use of the manager in checking the sanitation of his operation. After this check list has been completed, conferences should be arranged with respective employees, responsible for violations, advising the recommended changes.

Adapted from: "Tourist and Resort Series"
Michigan State University

HAND DISHWASHING PROCEDURE

A. Adequate facilities
- Adequate soiled dish storage space and garbage disposal
- A suitable three-compartment sink
- Adequate drainboard space for clean dishes
- A sufficient supply of hot water
- A compatible washing compound
- A 220°F thermometer and chemical test papers

B. Recommended steps in procedure
- Scrape, stack, and segregate dishes
- Check for cracked dishes, glasses and stained silver
- Pre-wet or flush dishes
- Handwash each utensil in first sink compartment
- Use the correct washing compound
- Apply friction - brushes, etc.
- Rinse in hot water 140°F in second sink compartment
- Use long handled baskets
- Sanitize in third sink compartment containing hot water 170°F or 100 ppm approved chemical sanitizer
- Submerge at least two minutes
- Use baskets to eliminate extra handling
- Air dry

C. Correct storage
- Invert cups - glasses on trays
- Use trays for better storage
- Stack trays - keep dishes covered
- Store dishes in a clean enclosed area

Adapted from: "Tourist and Resort Series"
Michigan State University

MACHINE DISHWASHING

A. Space and equipment needed
- Adequate hot water
- Thermometer gauges in both wash and rinse line
- Rinse water minimum temperature is 180°F
- Racks for dishes and cups
- "Silver dry" facilities and space for air-drying dishes
- Dispenser for washing compound
- Adequate area for soiled dishes
- Suitable garbage disposal

B. Recommended procedure
- Pre-scrape, segregate and stack
- Rack and pre-flush
- Check compound for proper strength
- Maintain rinse water at proper temperature
- Remove racks to clean drainboards
- Air dry

C. Handling and storage
- Invert all glassware and cups
- Handle and store on trays
- Air dry
- Store on clean shelves, trays, or racks
- When dishes are not in service, they need to be kept covered

D. Maintenance
- Clean dishwashing equipment thoroughly at the end of each washing period
- Clean dish tables with detergent and rinse with clean water

Adapted from: "Tourist and Resort Series"
Michigan State University